CLAIMS:

1.   A simulation method for simulating a system having a plurality of circuit modules using software, comprising the steps of:

using an object oriented language;

preparing a plurality of circuit base classes, which describe base

5   circuit modules as classes, as a library;

describing the circuit modules to be simulated as classes by inheriting the circuit base classes prepared as the library; and

describing the system to be simulated by combining the circuit modules described as the classes.

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2.   A simulation method according to claim 1, further comprising the step of describing the system as a class by inheriting the circuit base classes prepared in the library.

3.   A simulation method according to claim 1, further comprising the step of preparing a component class having the properties of a circuit which contains a circuit operating asynchronously with a clock signal, and a synchronous module class, having the properties of a circuit operating synchronously with the clock signal in the library, which is derived from .

4.   A simulation method according to claim 3, further comprising the

step of preparing a bus class having the properties of a bus, a bus master class having the properties of a bus master, and a bus slave class having the properties of a bus slave, as the circuit base class described as a class derived from the synchronous module class, in the library.

5.   A simulation method according to claim 4, further comprising the step of preparing a bus master interface class, whose base classes are the synchronous module class, and which has the properties of a bus master interface, and a bus slave interface class having the properties of a bus slave interface, as the circuit base class in the library.

6.   A simulation method according to claim 3, further comprising the step of preparing a central processing unit class, whose base class is the synchronous module class, and which has the properties of a central processing unit, as the circuit base class in the library.

7.   A simulation method according to claim 3, further comprising the step of preparing a hierarchy class, whose base class is the synchronous module class, and which has the properties of a hierarchy of a circuit containing the bus, as the circuit base class in the library.

8.   A simulation method according to claim 4, further comprising the step of preparing a memory class, whose base class is the bus slave class,

and which has the properties of a memory, as the circuit base class in the library.

9.   A simulation apparatus, using a computer, for executing the method according to any one of claims 1 to 8.

10. A computer-readable storage medium for storing a computer program for executing the simulation method according to any one of claims 1 to 8.